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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/826,146 | 04/05/2001 | Wallace J. Lewis | 0065.00 | 3989 |

25295 7590 03/24/2004

USDA, ARS, OTT
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EXAMINER

BEISNER, WILLIAM H

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| ART UNIT | PAPER NUMBER |
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1744

DATE MAILED: 03/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/826,146

Applicant(s)

LEWIS ET AL.

Examiner

William H. Beisner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 24-31 and 34-37 is/are allowed.
- 6) ☒ Claim(s) 32 and 33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 32 and 33 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Newly presented claims 32 and 33 include step (b) that recites “drawing air from around a target chemical over said organism *after it displays a response behavior to said resource*”. The originally filed specification and claims fails to provide support for the new claim limitation that the organism is exposed to the target chemical “*after it displays a response behavior to said resource*”. The originally filed specification and claims state that the organism is exposed to the target chemical while it contacts or is exposed to the biological resource. See pages 20 and 21 of the originally filed specification and originally filed claims 17 and 18.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 32 and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 32 includes the steps of a) presenting a freely moving organism to a biological resource. Step b) of the method requires exposing the organism to a target chemical after it "displays a response behavior to said resource". Step c) requires removing the organism from the resource after it "displays a response behavior to said resource". If the conditions recited in steps b) and c) are followed, the organism would never be exposed to the target chemical. Clarification and/or correction is requested.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biederman (US 4,022,054) in view of Lambersten et al.(US 4,807,706).

The reference of Biederman discloses a method for training organisms to detect at least one chemical that includes i) presenting a freely moving organism (gerbil) in the immediate presence of a stimuli (electric shock); ii) drawing air from around a target chemical over the organism while exposed to the stimuli; iii) removing the stimuli from the organism after it displays a response behavior (activation of lever 46 or 48) to the stimuli.

The above claims differ by reciting that the stimuli is a biological resource rather than an electrical shock as disclosed by the reference of Biederman.

The reference of Lambersten et al. discloses that it known in the art of animal experimental psychology to employ food rewards or electric shock for training or conditioning animals (See column 6, lines 28-39).

In view of this teaching, in the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art at the time the invention

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was made to modify the training of the organism of the reference of Biederman to employ a food stimulus rather than electric shock for the known and expected result of providing an alternative means recognized in the art to achieve the same result. This technique is conventional in the art and known as classical conditioning or Pavlovian conditioning and would result in a trained organism that would display behavior to the target chemical without the presence of a biological resource.

With respect to the length of time for the exposures and/or number of exposures, it would have been obvious to one of ordinary skill in the art to determine the optimum lengths and/or number of exposure steps required to condition the organism based on considerations such as the specific organism employed and/or the target chemical to be detected by the organism.

Allowable Subject Matter

5. Claims 24-31 and 34-37 are allowed.

6. The following is a statement of reasons for the indication of allowable subject matter:

Claims 29-31 and 37 are allowable over the prior art of record for the same reasons as set forth in the office action dated 02 Sept. 2003.

Applicant's arguments, see pages 8-9, filed 02 Jan. 2004, with respect to claims 24-28 and 34-36 have been fully considered and are persuasive. Claims 24-28 and 34-36 would not have been obvious over any of the previous prior art rejection employing the reference of Wilson et al.(US 5,134,892).

Applicant's arguments, see pages 13-16, filed 02 Jan. 2004, with respect to claims 24-28 and 34-36 have been fully considered and are persuasive. Claims 24-28 and 34-36 would not have been obvious over any of the previous prior art rejection employing any of the references of Bitterman et al., Marfaing et al. or Manner et al. in view of Matsui.

Furthermore claims 24-28 and 34-36 define of the reference of Biederman because it would not have been obvious to one of ordinary skill in the art to modify the reference of Biederman to include a data analysis system operatively connected to the sensor means since the reference of Biederman merely employs toggles connected to lights.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Beisner whose telephone number is 571-272-1269. The examiner can normally be reached on Tues. to Fri. and alt. Mon. from 6:15am to 3:45pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Warden can be reached on 571-272-1281. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William H. Beisner
Primary Examiner
Art Unit 1744

WHB